

ARMY GROUND RISK-MANAGEMENT PUBLICATION COUNTERMEASURE

VOL 19 NO 6

<http://safety.army.mil>

JUNE 1998

POV update
POV FATALITIES
43
THRU APR FY 98
65
THRU APR FY 97

Readiness

Whether driving a HMMWV, vacationing, or playing off-duty sports—a risk-management program must be integrated into the training of every soldier to reduce accidents. This results in more soldiers and equipment on the job instead of in hospitals or maintenance facilities. Add it up: Less means more because fewer accidents result in more training, increased resources—thus greater readiness.



POV accidents remain the number-one killer of soldiers: As of 30 April this fiscal year, 65 soldiers have died in POV accidents—8 of them on motorcycles. Speed was a factor in most of the POV accidents, and fatigue figured into many of them. Losing soldiers in POV accidents is a tragedy felt across the Army and one we cannot afford.

—BG Burt S. Tackaberry, CG, U.S. Army Safety Center

Director's corner

Risk management. Two small words with big meaning in today's Army. For officers and noncommissioned officers at all levels, it's a word not to be ignored.

Why the emphasis on risk management? Why all the posters, slogans, and programs to improve Army safety? Why should you be concerned?

The answer to all three questions can be summarized in one word--readiness. Accidents detract from Army readiness. That in turn affects the Army's ability to deter war ... and the Army has an important job in that respect. Thus, the cost of accidents can spread far beyond just dollars and cents.

We must realize the true cost of our safety failure--the drain it creates on our wallet and on our readiness.

From a purely money standpoint, the cost is enormous. In Fiscal Year 1997, for instance, reported accidents cost the Army more than \$134 million. And that is just the direct costs of Army personnel injuries and damages to Army property. The indirect costs--including injuries and damages to non-Army personnel and property, claims settlements and damage awards--would push the figures even higher.

The result of course is a significant drain on Army resources. Money that might be better spent improving training, weapons, and equipment is instead spent in the accident area. Money that could go toward increasing the readiness of our forces instead gets lost in a

jungle of injury costs and repair bills. The Army has excellent equipment and support, is well trained and ready to accomplish its global missions, and is building for the 21st century. Better risk management programs will strengthen those areas even more.

However, that loss of hard cash is not the only hindrance of readiness caused by accidents. The personnel time lost due to injuries means soldiers are not available for training ... not available to do their jobs ... not available to fight if necessary. It means extra time to recruit and train soldiers who must replace those killed or seriously injured in accidents.

Then there's the purely humanitarian aspect of risk management. The concept that the Army "takes care of its own" enters the picture here. Caring for the Army family must include providing people, to the greatest extent possible, a safe environment and safe working conditions. The Army may have some inherent dangers as a profession, but it does not have to be inherently unsafe. So the challenge facing Army leaders is to achieve maximum readiness without sacrificing the safety of soldiers or equipment.

Risk management is important in today's Army. ♦

BG Burt S. Tackaberry, Director of Army Safety



FY97 Totals

Personnel Injury	2.27 (1,328)
POV	0.75 (437)
Military Vehicle	0.52 (304)
Ground & Aviation	3.91 (2,287)
Total Army Costs	134M

It's a family thing

We are America's soldiers. We are drivers, mechanics, aviators, nurses, clerks, crewmembers, and DACs. We are also sons, daughters, brothers, sisters, fathers, and mothers. We are family...Army family.

As of 30 April, 65 soldiers have died in POV accidents this fiscal year. This irritates me. What can we do? What can the Army family do to help keep our soldiers from killing themselves? Is there a magic formula or special super powers to protect our soldiers? No, there isn't. If such a thing were possible, we would have done it already. We just have to work with what we have.

There are a lot of tools available to keep soldiers safe. It could be the very best tool in the Army--but if soldiers don't know about it, don't follow it, or don't know how to use it--it becomes a waste of time, and safety will suffer.

The *Leader's Guide* is a great tool if it is used. It can be accessed via the Army Safety Center website: <http://safety.army.mil/toolbox.html>. It shows leaders how to look at a situation and figure out what actions to take to reduce the risk. The *Leader's Guide* can't make certified accident investigators out of everybody, but it can offer another perspective and disclose other POV accident cause factors that haven't been thought of before.

Most things don't happen purely by chance. We know when there's an undisciplined member in our unit family, it's never a secret. We talk. But do we care? Do we care enough to do the right thing and report our brother or sister? That's tough to do, but it's not as tough as

looking down into a coffin and know we could have done something earlier to have prevented this tragedy and saved our brother's life.

I know how easy it is to look back and figure out how you could have prevented an accident. Yes, hindsight is 20/20. What I would like to see happen is for leaders to use the *Leader's Guide* in conjunction with the *POV Toolbox (2d edition)* and

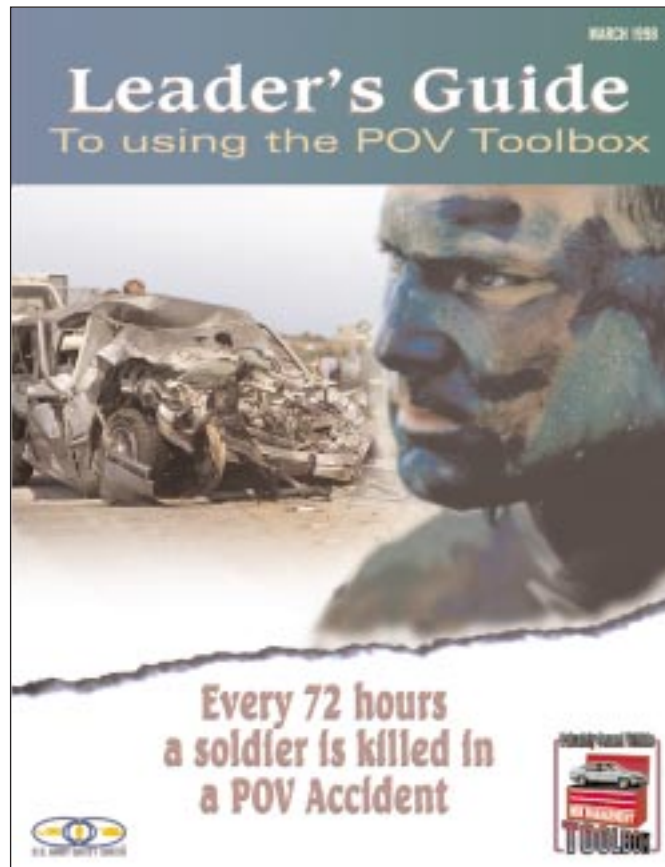
look at their current situation and apply the same analyses. These tools can help prevent accidents if used. Take an active role in preventing accidents from ever occurring. Turn it around. Turn hindsight into foresight.

There are three sections in the *Leader's Guide*. The first is a series of vignettes that are drawn together from the facts of different accidents. They are similar to accidents that have happened in recent memory. The second section is a series of scenarios that show probable situations that you could find yourself in. They are not great works of fiction, there is no need to alert the Pulitzer Prize

Committee. They are simply something for you to think about. You might not be in the same situation, but you may experience a similar circumstance. The third section is a series of slides that you can present to your soldiers or to anybody else who will listen--we'll take all the help we can get.

We must watch out for our family. To just stand by and watch one of our own endanger himself and others is a violation of the special trust and responsibility we have as members of the Army family. We must care. We must act. It's a family thing. ♦

**POC: Mr Al Brown, Ground Sytems Division,
USASC, DSN 558-2534, brownj@safety-emh1.army.mil**



Sports injury prevention

Key to combat readiness

We all know that physical readiness is a vital part of Army life and critical to combat readiness. Participating in sports and recreational activities, as well as physical training, is the most popular way soldiers can choose to maintain physical and mental fitness, as well as build esprit de corps. Unfortunately, it's not all fun and games.

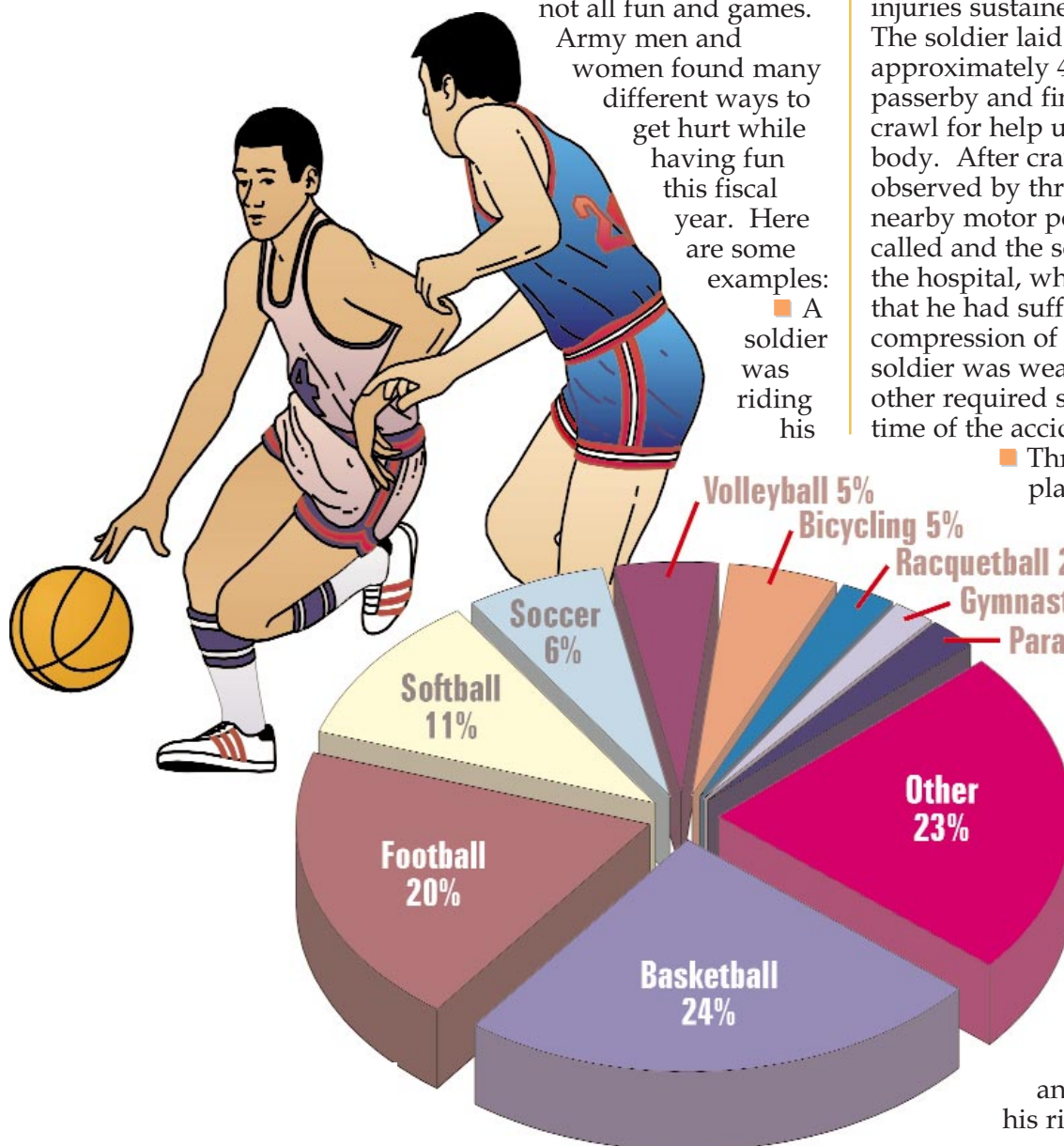
Army men and women found many different ways to get hurt while having fun this fiscal year. Here are some examples:

■ A soldier was riding his

mountain bike along an unimproved dirt road. As he was descending a hill, his front wheel slid into a deep rut on the left side of the roadway. His wheel turned sharply, dug in, and stopped the bike suddenly. The soldier flipped over the handlebars and landed in the road 15 feet down the hill. Although conscious, the soldier was unable to walk due to the injuries sustained to his spinal column. The soldier laid in place for approximately 45 minutes awaiting a passerby and finally forced himself to crawl for help using only his upper body. After crawling 680 meters, he was observed by three soldiers working at a nearby motor pool. An ambulance was called and the soldier was transported to the hospital, where it was determined that he had suffered a broken back and compression of the spinal cord. The soldier was wearing a helmet and all other required safety equipment at the time of the accident.

■ Three off-duty soldiers were playing a pick-up game of basketball at a local gym. One of the soldiers was on a breakaway and went for a layup. He came down on his foot wrong and it caused his knee to buckle, tearing his patellar tendon.

■ A soldier was playing basketball during off-duty time at home. He jumped for the basketball and when he landed, his right foot twisted inward and then outward, injuring his right ankle.



■ A soldier was participating in a Rugby match. As he was tackling his opponent, their legs became entangled and the soldier fell to the ground, fracturing his left fibula. An ambulance transported him to a local hospital emergency room.

Sports and recreational accidents rank third behind privately owned vehicle (POV) accidents and combat soldiering as a major cause of accidental injury. When soldiers are injured, that directly impacts the Army's ability to accomplish its mission. What is the solution to reducing sports injuries? Is it to stop participation in athletic activities? Should we allow only certain people to participate in contact sports? The answer is "no" to both questions. Most sports activities involve a small element of danger: physical exertion, physical contact, and quick decisions followed by fast action.

Through mid-year FY98, there have been 142 sports-related accidents. That's the bad news. The good news is that the numbers have been steadily decreasing each year. Twenty-four percent of the sports-related accidents involve playing basketball. This is followed by touch football, softball, and soccer. The causes of injuries were mostly sprains and strains.

FM 21-20: Physical Fitness Training outlines the principles of exercise. These principles are important for developing an effective physical fitness program. A structured program, in conjunction with proper equipment and good leadership, can minimize the risk of soldiers sustaining injuries.

A soldier's main job is to be able to function well in combat. It is the leader's responsibility to make sure his soldiers are prepared at all times. There is no single or simple solution to prevent sports injuries, but they can be reduced. Leaders must be familiar with the hazards associated with sports activities and ensure their soldiers: (1) warm up before participating in any sport, (2) master the techniques of the sport, (3) stay in good physical shape, (4) be adequately equipped, and (5) know and practice the safety rules of the sport.

Effective leadership is a critical factor in the success of a good physical training program. We, as leaders, must emphasize the value of physical training, clearly explain the objectives and benefits of the program, and demand that it be accomplished to standard. It is important that the Army stays physically fit and prepared to complete their mission.

Combat readiness is the responsibility of not only the unit leaders, but the entire Army family! We must be fit in body and mind and ready to fight on the battlefield.

Be smart—play safe! ♦

POC: SFC Erwin Bailey, Armor Branch, Ground Systems Division, USASC, DSN 558-2908, (334-255-2908), baileye@safety-emh1.army.mil

Sporty Safety Tips

Use these 5 safety tips to help reduce the hazards and prevent injuries when participating in sports activities.



1. Warm up before participating in any sport.
2. Master the techniques of the sport.
3. Stay in good physical shape.
4. Be adequately equipped for the sport.
5. Know & practice the safety rules of the sport.

Always Play it SAFE!

A safe vacation is no accident

You need a vacation? Why not, you've earned it. Even though you'll be taking some time off from work, remember not to take "time off" from safety. Playing it safe while on vacation can help you and your family avoid accidents and injury while getting the rest and recreation you deserve. Playing it safe means preparing for your activities ahead of time and using common safety sense.

Summer vacations are so important that we start planning for them months in advance. As the weeks click off and departure day nears, we start fretting about the long-range weather forecasts, we review the road map for any possible shortcuts, and we make the necessary reservations. We plan our vacation to the max, but before gathering up the family and heading off, consider these tips:

- **Pack a first-aid kit.**

Whether one is traveling to a nearby park or the distant mountains, it's wise to include a well-stocked first-aid kit. The kit should contain: bandages, sterile gauze, adhesive tape, scissors, an elastic bandage to wrap a large wound, acetaminophen, a thermometer, medicated ointments, tweezers, calamine lotion, antiseptic soap, hydrogen peroxide, hand towels, a small flashlight, and important telephone numbers. A few other things that need to be packed are insect repellent and medication for motion sickness, nausea, diarrhea, and upset stomach.

- **Check your wheels.** Mechanical malfunction inevitably rears its ugly head on long trips. Glitches in essential items such as steering and braking can be dangerous. Also inspect belts, hoses, battery, and lights.

Prepare for road contingencies as well. Be sure your spare is inflated and in place. Pack extra belts, hoses, fuses, spark plugs, windshield

wiper blades, and oil. Also, bring some basic tools and a fire extinguisher.

Don't forget the things you can get arrested for not having: driver's license, insurance card, and vehicle registration.

- **Transportation along the way.** Plan your route carefully. Wear seatbelts. It's the best piece of advice for anyone on the highway.

Don't drive when tired or under the influence of alcohol or drugs. Stop and stretch or relax every two hours or 100 miles. If possible, that's a good time to change drivers. Drive defensively, anticipate the actions of other drivers. Drive the speed limit and obey road signs.

If one is traveling on public transportation: Do not sleep on trains, buses, or in taxis. Do not travel into an unfamiliar area alone, especially at night. Don't get so engrossed reading the current thriller that you jeopardize your own safety. Stay alert! Sit close to the driver. Do not sit near exits, where one is an easy target for

quick-hit thieves and purse snatchers.

- **Beat the heat.** Except for the cold, heat kills more people than any other natural hazard, and that includes hurricanes, tornadoes, floods, and earthquakes. Restrict strenuous activities to the coolest part of the day. Avoid direct exposure to the sun between 1000 and 1500, when the sun's rays are the strongest. Use a sun screen with a sun protection factor rating of at least 15 for skin protection. Wear loose-fitting, lightweight and light-colored clothing that reflects the heat and sunlight. Drink lots of water during and after strenuous activity (even if you don't feel thirsty). Wear sunglasses that block ultraviolet rays.

- **Bugs that bite.** To help control pesky insects, such as mosquitoes, bees, and other stinging insects--wear insect repellent. Don't wear bright-colored clothing. Don't use cologne



or scented cosmetics, especially floral. Avoid rapid movements that look like attacks. If you happen upon a nest—move away slowly. Don't eat or drink sweet things outdoors; they attract insects like a magnet. If you are stung by an insect and begin to experience hives, stomach pains, diarrhea, dizziness, chills or facial swelling (regardless of where you may have been stung), you are more than likely having an allergic reaction. Seek immediate emergency medical help.

● **Leave snakes alone.** A favorite summer activity is a hike in the woods, but beware of snakes. Keep hands and feet out of areas you can't see. Don't pick up rocks or firewood in snaky areas. If one is bitten, wash the bite with soap and water, immobilize the bitten area and keep it lower than the heart, and get medical help at once.

● **Leaflets three, let it be.** Poison ivy, poison oak, and poison sumac are the three most common poisonous plants. The key to protection is the ability to recognize and avoid

the plants that carry the poison. Both poison oak and poison ivy have three-leaflet stems. The two-side or lateral leaflets appear to be symmetrical and they grow close to the stem while the end leaflet is distinct and alone.

Poison sumac can have seven, nine, eleven, or thirteen leaflets; these also grow in symmetrical pairs close to the stem—except for the one at the end. Take extreme precautions to prevent direct or indirect contamination. Wear trousers tied at the boot mouth, a long-sleeved shirt, and gauntlet-type gloves to prevent contact.

● **Homeward bound.** Now, let's get home safely. Don't try to complete a long drive on the last day. Sure you want to get home, but more importantly, you want to arrive safely. Drive part of the way the day before and spend the night. On the last day, sleep late and arrive relaxed.

A vacation trip requires more effort than just turning the key and heading out. Prior planning will keep things running smoothly and safely.

Ahhhhh, home at last—safe and sound.....

Don't get tick sick

This winter has been filled with rain and mild weather. What we may consider a nice break from freezing weather has been a delight to the deer tick population. When rainstorms prevail in place of snow, the ground stays moist, as do woods, weeds, and other tick habitats. A freeze usually takes care of ticks for the season, but they haven't been disabled by this year's weather, and are catching rides inside homes on pets and people.

Deer ticks are pesky because of their association with Lyme disease, an infection resulting from a transmission of a bacterial or viral agent through a tick bite. Lyme disease often begins with an expanding red rash at the site of the bite within a month. Other symptoms include fatigue, headache, neck stiffness, jaw discomfort, pain or stiffness in muscles or joints, slight fever, swollen glands and conjunctivitis. Symptoms are similar to the flu, vague until they manifest as complications such as meningitis.

In some stages, deer ticks are as minute as a dot from the point of a sharp pencil; others are noticeable. They wait on grasses, leaf litter

or bushes, and attach themselves to birds, animals or humans. They do not jump or fly.

Although fewer than 20 percent of ticks carry disease, help prevent tick bites by avoiding tall grass, leaf litter and bushy undergrowth. Wear appropriate clothing, such as a tucked-in shirt with snug collar and cuffs; long pants tucked into socks, and good boots. Wear light-colored clothing to make ticks easy to see. Repellents on skin and clothing help reduce the risk of a tick embedding itself. Read warning labels on containers and follow directions to avoid a possible poison hazard. Monitor yourself, children and pets immediately after coming inside and inspect clothes. Remove attached ticks by using fine-pointed tweezers. Following removal, wash your hands and apply antiseptic.

If you experience flu-like symptoms within a month after being bitten by a tick, contact a doctor immediately. The disease is treatable with antibiotics. Be cautious. **Don't get sick from a tick! ♦**

POC: SSG Michael R. Williams, Ground Systems Division, USASC, DSN 558-2959 (334-255-2959), williamm@safety-emh1.army.mil

A shot in the dark

It was the last CALFEX of over twenty iterations. The battalion task force had conducted extensive training and preparation all the way down to the soldier level. The winter night air was cool and a damp mist had settled above the ground. The translucent clouds hung low and let the moonlight shine through overhead. The live-fire range was well beaten with miles of footprints dug into the sandy soil. Pieces of what used to be targets barely stood in the shadow of the horizon. The trench-line bunker system was well-riddled with shrapnel and sweat from weeks of hard training. The night of ENDEX had finally arrived. One more time through the breach. One more time through the trench. One more time through the network of steadfast bunkers. One last time—and it would all be over.

The mission was the same. A battalion task force minus, comprised of two company teams with an attachment of engineer “sappers,” was to conduct an attack on a multi-bunker complex surrounded by a trench line and concertina wire. One company team was to occupy a “support-by-fire” position on high ground overlooking the trench line from the north. The other team, augmented with the engineers, was to clear a portion of the wire obstacle to the west of the bunker system to allow the assault element to

breach the wire and attack the objective.

From a distance, the familiar whine of UH-60 Blackhawks approached ever so vigilantly over the treetops. The wet leaves sprayed a fine mist as the rotors passed within what seemed like inches of the trees. On the still ground below, the sand awoke and began to fly in all directions. The Blackhawks settled into the LZ and unloaded a task force worth of highly-motivated soldiers. The teams began to move out to the objective. In their familiar wedges, they lightly rustled through the underbrush as they made their way to their positions.

The main support-by-fire element assumed its position roughly 380 meters north of the trench line. The brisk night air was overcome by the adrenaline running through each soldier’s veins. The enemy was less than 500 meters away. The local support-by-fire position set up to the west of the main support-by-fire position which had already commenced to firing on the westernmost part of the objective. They, in turn, commenced to unloading with machine gun fire on the westernmost bunker. The glow of rifle barrels began to get brighter as ball and tracer ammo pierced the night air. The smell was unmistakable. Expended rounds and hot metal excited the senses of each and every rifleman.

All the while, an assault element had made its way around to the west side of the range and

assumed a secure position 100 meters away from the objective and behind a berm. The Infantry platoon and the sapper team were eager to get to the objective. They had trained on this mission to near perfection. Sweat had already washed half the camouflage off their faces and down onto their soaked undershirts. This was their last chance to catch their breath before attacking the objective with all the vim and vigor they



MISSION: COMPANY COMBINED ARMS LIVE FIRE EXERCISE (CALFEX)

Hazards:

- Live Fire Night Operations
- Explosive Mean Safe Distance Limits
- Multi-direction Small Arms Firing

Result:

- Weapon(s) fired out of sector
- 1 Fatality -- Soldier killed by small arms fire

Controls:

- Enforce rehearsal requirements
- Strict compliance with range and unit SOPs
- Active leadership in all phases of operation
- Use of personal protection devices

CALFEX-8

were trained to exude.

The sappers approached the wire. This was the cue for fires to shift to the east, away from the breach site. Gunfire could be heard above everything else. The range lit up with streaking tracers. The ball ammo hissed and pinged as they shot downrange. You could hear the rounds ricocheting off pickets of the concertina wire. Dirt was flying in all directions. Targets were shattering from rounds penetrating their steel bodies. To the untrained observer, it would seem like hell unleashed.

Unaffected by the events surrounding them, the sappers crawled up to the wire with their bellies sliding against the cold wet sand. They assessed the best place for the breach and prepared the bangalore torpedo. Two sections of high-explosive pipe were joined together and pushed under the wire. The detonation sequence was started and the sappers returned to the berm to take cover.

The blast shook the whole range. Sand and debris flew in all directions. The sappers returned to the freshly formed opening in the wire and began to proof the breach. As they began marking the lane with chem lights, rounds were still being fired from the support-by-fire positions toward the westernmost bunker. They had not shifted fires. Unaffected by this, the sappers continued the mission. The lane was proofed and the assault element approached. Hearts were pounding and the adrenaline was pumping. The focus: assault the trench and take out the bunkers. Everyone concentrated on their piece of the action. As long as they did their part and completed their task, the mission would be a success.

But, the lead team stopped before the breach. Something was not right. The team leader observed rounds being fired over the road that traveled north/south between the wire obstacle and the trench line. There were rounds impacting the road and hitting the pickets in the concertina. He took a knee and thought to himself that these rounds were clearly out of sector and that the support-by-fire position had not shifted fire as planned. There were sappers at the breach and a team of far-side security on the other side of the road. He quickly relayed up the chain "they haven't shifted fire, they haven't shifted fire!" The company commander then called for a shift fire and fired a star cluster (the back-up signal to shift fire).

The mission had to continue. They had done this many times before and seeing rounds at close range was normal, especially at night. Rounds always seem closer than they actually

are. . .so they say.

The sappers were in the prone at the breach. The assault element bounded through the breach and entered the trench. The first grenade exploded in the first bunker with a muffled, yet lethal crack. On to the next bunker.

Meanwhile, the sapper squad leader made his way back to his sappers at the breach. They were to get up and move to a reconsolidation point and maintain a southern security. He got the trooper at the north side of the breach and made his way to the trooper at the south side. He tapped him on the soles of his feet to get his attention. No response. He reached down and pulled at him at the shoulder. As he turned him over, he realized that he was lying in a pool of his own blood. He had been fatally wounded. Cease fire was called.

This accident was indeed a tragedy. However, like most accidents, it was avoidable. Live-fire exercises of any type or size are inherently dangerous and should be given all the preparation time and respect they deserve. As was in this case, the planning and preparation was outstanding. Leadership involvement from the battalion commander on down to the individual soldier was the key to the previous successes of this series of CALFEXs. But, even the best laid plans are subject to intangibles.

In this case, it was determined that rounds were clearly being fired out of sector. Two separate actions had an impact on the resulting fatality and both were leadership failures. The first action was that an undetermined rifleman fired out of sector. For this to happen, a first-line supervisor had to have failed to properly supervise a soldier while that soldier was firing. Second, no "cease fire" was called when rounds were observed out of sector. More than one individual observed rounds out of sector, including soldiers in leadership positions. The soldiers had been overcome by the "hooah" factor and had conducted this type of operation so many times previously that they became somewhat complacent about the proximity of the impacting rounds. Army Regulation 385-63 and universal range safety policies incorporated into all local range-firing SOPs require that out-of-sector firing, as well as any unsafe act, should be stopped immediately by calling "cease fire."

Remember, everyone is a safety officer and the action of calling for cease fire can originate at ANY level. ♦

POC: MAJ Gary J. Kotouch, Ground Systems & Accident Investigation Division, U.S. Army Safety Center, DSN 558-2933 (334-255-2933), kotouchg@safety-emh1.army.mil

Tree crushes ground guide

There have been 33 accidents since FY 95 that are directly related to improper ground guiding procedures. Over half of these accidents were caused by the ground guides not being properly located. Six of these accidents involved tracked combat vehicles of which four resulted in fatalities. The following is an account of one of those fatal accidents.

Mission: During a night tactical operation, one tank platoon was ordered to support another tank platoon under attack.

The main body of the unit had occupied the new assembly area and was in a defensive position by 1600. One tank platoon had remained behind and was still located at the old assembly area. At approximately 1900, this platoon came under heavy enemy attack and requested support and an escort to guide them into the new assembly area. The executive officer gave the mission to a tank crew that consisted of an experienced tank commander (TC) and driver, and another soldier as loader who had been attached to the unit for less than 24 hours. This soldier lacked experience as an M1A1 tank crewmember and had received no

formal training prior to this exercise.

The entire maneuver area had become saturated from the week-long heavy rainfall and the tactical operations area was very heavily vegetated. The crew soon realized that they were going to have problems as they immediately knocked down one tree and struck another as they began their mission.

There was near zero illumination due to the inclement weather and fog. As the crew departed the assembly area, the driver attempted to use the old second-generation AN/VVS-2 night vision viewer and realized that it would be necessary to use the infrared lights to identify obstacles more clearly. This particular tank had a mine plow attached with mounting brackets situated in front of the infrared lights. When the driver turned on the infrared lights, they reflected off the left and right mounting brackets causing the night periscope to wash out. Therefore, the infrared lights were not used to assist the driver in maneuvering the vehicle through the assembly area.

The TC also chose not to utilize his AN/PVS-

7B night vision goggles and left them in the cupola. Instead of using the latest and best image intensification technology, they chose to use a flashlight with red lens and a chem light.

The TC ground-guided from the front of the vehicle and the loader from the rear. After they successfully turned the vehicle around and negotiated the last turn, it was a straight shot to

INDIVIDUAL FAILURE

MISSION:

Escort tank platoon to new assembly area

RESULT:

1 fatality

Contributing Factors:

- Ground guide (TC) was too far in front of the vehicle to check for proper clearance
- TC never checked vehicles movement
- TC failed to utilize night vision goggles IAW TACSOP
- Use of two ground guides in front of vehicle
- Driver unable to use AN/VVS-2 because of mounted mine plow
- Near zero illumination



the tank trail.

With no pre-planned withdrawal route and the assembly area not having a designated exit, the TC and loader started walking toward the tank trail, expecting the driver to follow behind them. Coincidentally, both the TC and the loader decided to position themselves in front of the vehicle. The two were not facing the vehicle, therefore allowing themselves to get too far forward of the vehicle (about 55 feet). From this position, neither one was able to monitor nor correct the vehicle for proper clearance.

At some point, the TC and the loader decided to change lights with each other. Subsequently, the driver became confused as to who to follow. Not long after this, the driver felt the right track rise and saw two lights hit the ground. The vehicle had struck an 80-foot tree causing it to fall forward, landing on both the TC and the loader. The TC sustained fatal injuries.

Summary

Because of his experience, the TC was confident in his ability to ground guide his vehicle through the assembly area in near zero visibility without the use of night vision devices. He allowed himself to get too far in front of the vehicle where he was unable to monitor and correct for proper clearance in accordance with AR 600-55, AR 385-55, and TC 21-306. There were also two ground guides in front of the vehicle which caused the driver confusion as to which guide and signal to follow. In addition, the driver could not have seen the tree due to a limited field of view and limited visual acuity while using the AN/VSS-2 night periscope.

The hazards were not identified or assessed before initiating this mission. They were conducting night operations in near zero illumination. The assembly area was heavily wooded with no defined entrance, routes, or exit. The crew did not have enough qualified personnel to safely ground guide the vehicle through the assembly area. The ground guides were not properly located to safely guide the vehicle.

Controls: The following controls can be found in AR 385-55, Prevention of

Motor Vehicle Accidents; AR 600-55, The Army Driver Standardization Program; TC 21-306 (Draft), Training Circular for the Tracked Combat Vehicle Driver and FM 21-306, Manual for the Tracked Combat Vehicle Driver. Hand and arm signals can be found in FM 21-60 and in soldiers' manuals.

- All tracked vehicles are required to have both front and rear ground guides while moving in an assembly area.

- Training centers and unit SOPs usually require TCs to be situated in their cupola prior to any vehicle movement.

- The ground guide's responsibilities are to make sure the route ahead is clear and guide the vehicle through danger areas and into position.

- The driver should keep approximately 10 meters between the vehicle and the ground guides, being sure to stay far enough away from them to be able to stop safely should they stumble or fall.

- In wooded areas, the ground guides should be far enough from the vehicle to avoid being hit by falling trees. Other personnel in the area should be warned of the dangers caused by moving vehicles. METT-T factors such as night operations and illumination should also be considered when determining the distance between the vehicle and ground guides.

- When using ground guides, always follow their directions. If a ground guide goes out of sight for any reason or signals are confusing—stop the vehicle immediately and wait for further guidance.

- Do not take signals or commands from more than one ground guide.

- If the vehicle is backing up, the front ground guide will relay any signals from the rear ground guide.

- Always use night vision devices in periods of low visibility or during night operations that involve vehicle movement.

- Entrances, routes, and exits in assembly areas should be marked or at least known by all personnel. ♦

POC: SFC Charles P. Olsen, Engineer Branch, Ground Systems Division, USASC, DSN 558-3034 (334-255-3034), olsenc@safety-emh1.army.mil

From the troops

Starting with this issue, a new Countermeasure section called, "From the Troops" will provide stories, news, information, and ideas from the field. Speak up! We know you have many stories to tell. By sharing your experiences—the what, when, where, how, and why of the accident that happened and the ones that almost happened but didn't—you can assist others who find themselves in similar situations. This is your chance to make a contribution to the Army in the critical job of conserving resources through accident prevention.

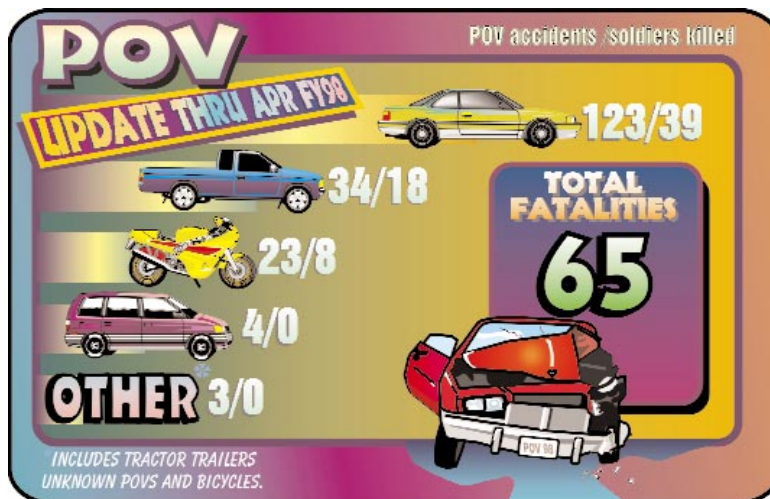
Don't worry if you haven't taken courses in creative writing. It's the idea that's important. We have a professional writer/editor who will review your story or article and work with you. Stories should be typewritten and double-spaced, and not exceed two pages. If you're not a typist, jot it down on whatever is available, but please make it legible. All stories may be edited for reasons of style,

accuracy or space limitations. Articles will also be reviewed by our legal department. Include your full name, rank, duty address, and phone number; we'll do the rest.

If you prefer to be anonymous, just tell us so; we'll respect your request; after all, it's the lessons learned that just might help a fellow soldier save Army equipment, or more importantly, a life.

The volume of letters we receive makes individual acknowledgment impossible; however, if published in Countermeasure, we will send you a letter from the Director of Army Safety with a personal copy of your Countermeasure article.

Articles can be sent to Commander, U.S. Army Safety Center, ATTN: CSSC-OG (Countermeasure), Bldg. 4905, 5th Avenue, Fort Rucker, AL 36362-5363. Articles may also be faxed to the attention of Ms. Paula Allman, DSN 558-9528 (334-255-9528) or send via e-mail to countermeasure@safety-emh1.army.mil ♦



Countermeasure is published by the U.S. Army Safety Center, Fort Rucker, AL 36362-5363. Information is for accident prevention purposes only and is specifically prohibited for use for punitive purposes or matters of liability, litigation, or competition. Address questions about content to DSN 558-2688 (334-255-2688). To submit information for publication, use Fax DSN 558-9528 (Ms. Paula Allman) or e-mail countermeasure@safety-emh1.army.mil. Address questions about distribution to DSN 558-2062 (334-255-2062). Visit our website at <http://safety.army.mil>

Burt S. Tackaberry
Brigadier General, U. S. Army
Commanding Officer

Oops, we goofed!

If computers are so darned smart, why can't they change what you said to what you meant to say? In the April 1998 Countermeasure article, "Shortcut costly," we incorrectly described a rollover accident involving a FIST-V (M981) as an M577. We regret the mistake.